

No.

200000226



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Monsanto Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC FULFILLMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PROPAGATING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE KNOWN BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF SEEDLINGS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Norpro'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this eighth day of May, in the year of our Lord two thousand one.

Attest:

Alan K. Post

Acting Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

W. M. Emerson

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the privacy Act of 1974 (5 U.S.C. 552a)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421) Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Monsanto Company		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER N93-0119		3. VARIETY NAME NORPRO	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Wichita Wheat Technology Center 5912 N. Meridian Street Wichita, Kansas 67204-1699		5. TELEPHONE (include area code) 316-755-7705		FOR OFFICIAL USE ONLY PVPO NUMBER 2000000226	
		6. FAX (include area code) 316-755-0072		F I L I N G DATE April 27, 2000	
7. GENUS AND SPECIES NAME <u>Triticum aestivum</u>		8. FAMILY NAME (Botanical) Gramineae		F I L I N G DATE 4-24-2000	
9. CROP KIND NAME (common name) Hard Red Spring Wheat				F I L I N G DATE 250.00	
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (common name) Corporation					
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware		12. DATE OF INCORPORATION 1933		F I L I N G DATE 4-30-01	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. Blaine Johnson Randy Rich 5912 N. Meridian Street Wichita, Kansas 67204-1699 AND Mr. Robert Bruns 806 N. Second Street PO Box 30 Berthoud, Colorado 80513 970-532-9952				14. TELEPHONE (include area code) 316-755-7705	
				15. FAX (include area code) 316-755-0072	
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (follow instructions on reverse)					
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety					
b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness					
c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety					
d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety					
e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership					
f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds, or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)					
g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)					
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (if "yes", answer items 18 and 19 below) <input type="checkbox"/> NO (if "no", go to item 20)					
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			19. IF 'YES' TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDERS SEED? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> YES (if "YES", give names of countries and dates) <input checked="" type="checkbox"/> NO					
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT (Owner(s)) Blaine Johnson			SIGNATURE OF APPLICANT (Owner(s))		
NAME (Please print or type) Dr. Blaine Johnson			NAME (Please print or type)		
CAPACITY OR TITLE Program Director		DATE 1 Feb 2000		CAPACITY OR TITLE	
				DATE	

Exhibit A.
Origin and Breeding History of Norpro

Norpro originated from the cross "N88-0436/Dalen" which was made in Berthoud, Colorado during the fall crossing session of 1988. N88-0436 was an AgriPro experimental spring wheat which had the pedigree "Norseman/2369". Single heads were selected from the F2 population of this cross at Berthoud during the 1990 season. Selections were based on height and leaf rust resistance. Single seed descent was used to advance these selections through the F3 and F4 generations in the Berthoud greenhouse during the fall and winter of 1990-91. F5 headrows of these selections were planted at Casselton, North Dakota in 1992 where they were further screened for height, straw strength, foliar diseases, leaf rust and stem rust. Selected F5 headrows were individually bulk harvested. F6 increase plots were grown at Berthoud, Colorado and observation plots were grown at Casselton, North Dakota and Grand Forks, Minnesota in 1993. These lines were further screened on the previously mentioned traits as well as uniformity. The experimental designation of N93-0119 was assigned to one of these lines for yield evaluation which began in 1993. N93-0119 was tested in AgriPro nurseries in the Red River Valley of North Dakota and Minnesota from 1993 to 1997. It has been tested in the Northern Uniform Regional Nursery in 1997 and 1998.

In 1995, 80 headrows were grown in Berthoud, Colorado. Seventy-four headrows with uniform appearance were harvested and planted as a 0.2 acre initial Breeders Seed increase in 1996. In 1997, a one acre Breeders Seed increase was grown in Berthoud, Colorado that produced 10,500 pounds of seed.

Norpro has been uniform and stable since 1995. About 0.8% of the plants were rogued from the initial Breeder's Seed increase in 1996. Approximately 90% of the rogued variant plants were taller height wheat plants (5 to 15 cm). Up to 1.0% variant plants may be encountered in subsequent generations.

Exhibit B.
Statement of Distinctness

Norpro is most similar to the hard red spring wheat 'Hamer'. However, it can be easily distinguished by the following morphological characteristics:

- Norpro has a square shoulder on the glume (Berthoud, Colorado 1997, 1998 and 1999). Hamer has an oblique shoulder on the glume, (Berthoud, Colorado 1997, 1998 and 1999).
- Norpro has angular seed cheeks (Berthoud, Colorado 1997, 1998 and 1999). Hamer has rounded seed cheeks (Berthoud, Colorado 1997, 1998 and 1999).
- Norpro has a wide glume width (Berthoud, Colorado 1997, 1998 and 1999). Hamer has a medium glume width (Berthoud, Colorado 1997, 1998 and 1999).

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* Spp.)

NAME OF APPLICANT(S) Monsanto Company	FOR OFFICIAL USE ONLY PVPO NUMBER 200000226
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 5912 N. Meridian Street Wichita, Kansas 67204-1699	NAME OR EXPERIMENTAL DESIGNATION NORPRO

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in the first box when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized standard may be used to determine plant colors; designate system used.

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

1=Common 2=Durum 3=Club 4=Other (specify) _____

2. VERNALIZATION:

1=Spring 2=Winter 3=Other (specify) _____

3. COLEOPTILE ANTHOCYANIN:

1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

1 = Erect 2 = Recurved

1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

Number of Days Earlier Than Verde *

Number of Days Later Than _____ *

8. ANTHOR COLOR:

1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

cm Taller Than _____ *

cm Shorter Than Verde *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

1 1= Absent 2=Present

B. WAXY BLOOM

2 1=Absent 2=Present

C. HAIRINESS (*last internode of rachis*)

2 1=Absent 2=Present

D. INTERNODE (*specify number*)

1 1=Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

1 1=Erect 2=Recurved

1 8 cm Length

11. HEAD (*at Maturity*):

A. DENSITY

2 1=Lax 2=Middense 3= Dense

B. SHAPE

2 1 = Tapering 2= Strap 3 = Clavate 4 = Other (*specify*)

C. CURVATURE

2 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

4 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (*at Maturity*):

A. COLOR

1 1 = White 2 = Tan 3 = Other (*specify*)

B. SHOULDER

4 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

3 1 = Obtuse 2 = Acute 3 =Acuminate

D. LENGTH

2 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

3 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

1 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

2 1=Rounded 2=Angular

C. BRUSH

2 1=Short 2=Medium 3=Long

1 1 = Not Collared 2 = Collared

D. CREASE

2 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

2 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

13. SEED: (continued)

E. COLOR

☒ 3 1 = White 2 = Amber 3 = Red 4 = Other (specify) _____

F. TEXTURE

☒ 1 1=Hard 2=Soft

G. PHENOL REACTION (see instructions):

☒ 0 1 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

<input checked="" type="checkbox"/> 3 Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) Field races	<input checked="" type="checkbox"/> 3 Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) Field races
<input checked="" type="checkbox"/> 0 Stripe Rust (<i>Puccinia striiformis</i>)	<input checked="" type="checkbox"/> 0 Loose Smut (<i>Ustilago tritici</i>)
<input checked="" type="checkbox"/> 0 Tan Spot (<i>Pyrenophora tritici-repentis</i>)	<input checked="" type="checkbox"/> 0 Flag Smut (<i>Urocystis agropyri</i>)
<input checked="" type="checkbox"/> 0 Halo Spot (<i>Selenophoma donacis</i>)	<input checked="" type="checkbox"/> 0 Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>)
<input checked="" type="checkbox"/> 0 <i>Septoria nodorum</i> (Glume Blotch)	<input checked="" type="checkbox"/> 0 Dwarf Bunt (<i>Tilletia controversa</i>)
<input checked="" type="checkbox"/> 0 <i>Septoria avenae</i> (Speckled Leaf Disease)	<input checked="" type="checkbox"/> 0 Karnal Bunt (<i>Tilletia indica</i>)
<input checked="" type="checkbox"/> 0 <i>Septoria tritici</i> (Speckled Leaf Blotch) Field races	<input checked="" type="checkbox"/> 0 Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) Field races
<input checked="" type="checkbox"/> 0 Scab (<i>Fusarium</i> spp.)	<input checked="" type="checkbox"/> 0 Snow Molds
<input checked="" type="checkbox"/> 0 Black Point (Kernel Smudge)	<input checked="" type="checkbox"/> 0 Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.)
<input checked="" type="checkbox"/> 0 Barley Yellow Dwarf Virus (BYDV)	<input checked="" type="checkbox"/> 0 Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>)
<input checked="" type="checkbox"/> 0 Soilborne Mosaic Virus (SBMV) Field races	<input checked="" type="checkbox"/> 0 Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>)
<input checked="" type="checkbox"/> 0 Wheat Yellow (Spindle Streak) Mosaic Virus Field races	<input checked="" type="checkbox"/> 0 Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>)
<input checked="" type="checkbox"/> 0 Wheat Streak Mosaic Virus (WSMV) Field races	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____

15. INSECT: (0=Not Tested; 1=SuIn 1995, 80 headrows were grown in Berthoud, Colorado. Seventy-four headrows with uniform appearance)

PLEASE SPECIFY BIOTYPE (where needed)

<input type="checkbox"/> 0	Hessian Fly (<i>Mayetiola destructor</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Stem Sawfly (<i>Cephus</i> spp.)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Cereal Leaf Beetle (<i>Oulema melanopa</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Russian Aphid (<i>Diuraphis noxia</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Greenbug (<i>Schizaphis graminum</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Aphids		_____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

Exhibit D.
Additional Description of Norpro

Norpro is a hard red spring wheat bred and developed by Agripro Wheat, Norpro is an intermediate semidwarf with medium early maturity, high test weight and very good straw strength. Norpro offers intermediate protection to the prevalent races of leaf rust and stem rust. Norpro has medium high protein and satisfactory milling and baking characteristics.

Juvenile growth habit is erect. Seedling anthocyanin is present. Plant color at boot stage is blue green. Auricle anthocyanin and auricle hairs are present. Flag leaf at boot stage is recurved and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is strap and awned. Glumes are glabrous, wide in width and medium in length with square shoulders and acuminate beaks. Seed shape is ovate. Brush hairs are medium in length and medium in area. Seed crease depth is midwide and width is middeep. Seed cheeks are angular.

Norpro is well adapted to the spring wheat region that includes the states of Minnesota, North Dakota, South Dakota and Montana .

AGRIPRO WHEAT
QUALITY SUMMARY

Year	Loc	Wht 14mb	Prot 14mb	Flr Prot	Flr Yld	FR	Ash %	Mix Peak Time	Mix Peak Ht.	Mix Tol	TR	Norris Hard	Bake Absor	% ABR	Bake Time	Loaf Vol	cc	LR	Grain R	Tex R	Color R	TOR R	Com R
NORPRO																							
1999	MW	13.7	12.4		69.1		0.430	3.50	5.00	1028		98	64.0		3.50	855		4	2		2		
1998	MW	14.0	12.4		71.4		0.498	3.00	5.00	837		80	65.0		3.00	900		4	4		3		
1997	MW	13.1	12.0		72.7	5	0.540	3.00	5.30	793	5	81	64.0	4	3.00	1115		3	5	4	4		49
1996	BP	15.5	13.7	4	68.7	6	0.412	3.25	5.30	758	5	86	66.0	4	3.25	1		3	5	2	2		47
1996	PR	15.7	13.7	4	71.3	5	0.382	2.75	5.50	710	4	102	68.0	3	2.25	3		6	5	3	3		49
1995	PR	14.5	13.1	5	69.0	6	0.446	3.25	5.30	863	5	84	65.0	4	3.00	3		5	5	2	3		51
1994	MW	13.9	12.8	3	69.0	5		3.25	5.00	919	5	81	68.0	2	3.25	3		4	5	2	3		R
1993	GF	14.2	12.7	5	72.2	3		2.75	5.00	1037	5	77	65.0	5	2.50	5		3	4	3	3		50
AVE		14.3	12.9	4	70.4	5	0.451	3.09	5.18	868	5	86	65.6	3.7	2.97	3	968	4	4.6	2.9	2.85	49	
LARS																							
1999	MW	12.4	11.6		70.5		0.472	5.25	4.50	1193		79	63.0		5.25	880		4	2		2		B
1998	MW	13.6	12.7		74.3		0.500	3.75	5.00	1158		76	65.0		3.50	990		5	4		3		B
1997	MW	12.2	11.3	5	75.2	2	0.564	3.75	5.00	1315	1	73	62.0	6	3.75	1		4	4	1	3		35
1996	BP	13.8	12.8	6	72.8	2	0.470	3.50	5.30	1287	2	79	65.0	5	3.75	3		5	4	3	3		45
1996	PR	14.3	13.1	5	73.8	3	0.416	3.50	5.00	1181	2	88	67.0	4	3.50	3		5	5	3	4		45
1995	PR	13.8	12.9	6	71.5	4	0.440	3.75	5.30	1179	3	80	65.0	4	3.75	1		4	4	3	3		45
1994	MW	13.2	12.4	4	73.9	3	0.506	3.25	5.00	1222	3	87	68.0	2	3.25	3							
1993	GF	13.2	12.1	6	71.5	4	0.470	5.00	4.50	1324	3	73	65.0	5	5.00	5		7	3	3	3		51
AVE		13.3	12.4	5	72.9	3	0.480	3.97	4.95	1232	2	79	65.0	4.3	3.97	3	940	5	4.1	2.7	3	42	

GRANDIN

1999	MW	13.3	12.3		71.2		0.416	4.00	5.00	1198		74	65.0		4.00	875		4	2		2		
1998	MW	14.2	13.0		72.5		0.474	3.50	5.00	961		74	66.0		3.50	990		5	3		3		
1997	MW	12.7	11.9	4	73.3	4	0.518	3.00	5.00	1145	2	77	63.0	5	3.00	3		2	3	1	2		34
1996	BP	15.6	14.5	2	73.3	1	0.388	3.25	5.50	1042	3	78	67.0	3	2.75	1		5	4	3	3		34
1996	PR	15.4	14.4	3	74.5	2	0.398	3.50	5.80	800	3	90	69.0	2	3.00	1		4	5	3	3		37
1995	PR	15.3	14.3	3	73.2	2	0.442	3.75	5.80	1118	3	83	67.0	2	3.75	1		4	5	2	3		35
1994	MW	14.1	13.1	2	72.8	3		3.75	5.00	1070	4	63	68.0	2	3.75	1							
1993	GF	15.0	13.6	3	71.0	4		3.50	5.00	1325	3	68	67.0	4	3.25	3		1	4	3	2		38
AVE		14.5	13.4	2.8	72.7	4	0.439	3.53	5.26	1082	3	76	66.5	3	3.38	2	1015	3	4.3	2.4	2.6	36	

Ratings: 1-2=excellent 3-4=Good 5-6=Acceptable 7-8=Questionable 9=Unacceptable

200000226

HARD RED SPRING WHEAT SUMMARY - 1998 Uniform Regional Data

NORPRO VS. VERDE

STATE	YIELD - BU/A			T.WT. - LBS/BU			HEADING - DAYS			HEIGHT - CM			LODGING - 1-9		
	LOCS	NORPRO	VERDE	LOCS	NORPRO	VERDE	LOCS	NORPRO	VERDE	LOCS	NORPRO	VERDE	LOCS	NORPRO	VERDE
MINNESOTA	1	68.2	65.5	1	56.0	57.8	1	21.0	23.0	1	102.0	102.0	1	4.7	5
NORTH DAKOTA	5	52.0	49.9	5	58.2	58.1	5	25.6	28.0	5	79.2	81.4	1	0	0.7
SOUTH DAKOTA	2	47.9	47.9	2	55.7	56.6	2	22.0	23.0	2	76.5	79.0			
MONTANA	3	61.8	58.5	3	58.7	57.2	3	28.0	29.3	3	77.0	79.7			
MEAN	11	55.4	53.3	11	57.7	57.6	11	25.2	27.0	11	80.2	82.4	2	2.4	2.9

NORPRO VS. KEENE

STATE	YIELD - BU/A			T.WT. - LBS/BU			HEADING - DAYS			HEIGHT - CM			LODGING - 1-9		
	LOCS	NORPRO	KEENE	LOCS	NORPRO	KEENE	LOCS	NORPRO	KEENE	LOCS	NORPRO	KEENE	LOCS	NORPRO	KEENE
MINNESOTA	1	68.2	62.5	1	56.0	58.4	1	21.0	22.0	1	102.0	103.0	1	4.7	5.3
NORTH DAKOTA	5	52.0	50.0	5	58.2	60.1	5	25.6	26.4	5	79.2	99.2	1	0	0.7
SOUTH DAKOTA	2	47.9	46.0	2	55.7	58.4	2	22.0	21.0	2	76.5	99.0			
MONTANA	3	61.8	58.4	3	58.7	60	3	28.0	28.7	3	77.0	98.3			
MEAN	11	55.4	52.7	11	57.7	59.6	11	25.2	25.6	11	80.2	99.3	2	2.4	3.0

NORPRO VS. 2375

STATE	YIELD - BU/A			T.WT. - LBS/BU			HEADING - DAYS			HEIGHT - CM			LODGING - 1-9		
	LOCS	NORPRO	2375	LOCS	NORPRO	2375	LOCS	NORPRO	2375	LOCS	NORPRO	2375	LOCS	NORPRO	2375
MINNESOTA	1	68.2	61.4	1	56.0	57.7	1	21.0	20.0	1	102.0	108.0	1	4.7	8
NORTH DAKOTA	5	52.0	47.6	5	58.2	59.4	5	25.6	25.0	5	79.2	87.2			
SOUTH DAKOTA	2	47.9	47.2	2	55.7	58.1	2	22.0	19.0	2	76.5	85.0	1	0	0.7
MONTANA	3	61.8	59.3	3	58.7	58.9	3	28.0	27.0	3	77.0	85.7			
MEAN	11	55.4	52.0	11	57.7	58.9	11	25.2	24.0	11	80.2	88.3	2	2.4	4.4

1996-99 OVER YEAR SUMMARY RANKED BY YIELD - AGRIPRO DATA All data from Red River Valley Sites in North Dakota and Minnesota

VARIETY	YIELD - BU/A					TEST WT. LBS/BU	PROT. %	HEAD. ³ 1-9	HT. 1-9	LOD. 1-9	FOLIAR		
	96	97	98	99	AVG						DIS. 1-9	WORTH 1-9	
IVAN	83.3	45.9	61.3	58.4	58.5	59.5	13.2	6.1	5.0	2.0	3.3	3.9	
OXEN	74.5	41.6	61.2	56.7	55.6	57.9	14.4	2.9	5.3	3.5	5.9	4.7	
NORPRO	72.8	39.7	64.0	54.0	55.0	59.0	14.7	4.5	4.9	2.4	3.5	3.4	
HAMER	73.4	39.2	58.9	56.2	53.9	58.7	14.3	4.2	5.1	2.9	3.9	4.1	
LARS	80.8	42.7	56.3	51.3	53.9	57.4	13.7	5.3	4.0	1.6	3.1	3.5	
HJ98	80.8	41.6	61.9	44.8	53.6	58.3	14.0	5.0	5.2	4.1	5.3	4.0	
VERDE	72.6	39.2	59.9	53.0	53.3	58.8	13.8	5.7	5.9	3.1	4.0	4.2	
RUSS	75.2	39.8	59.8	50.0	53.0	58.8	14.2	3.3	7.0	4.5	6.3	4.9	
HAGAR	78.2	40.0	58.6	46.5	52.2	58.3	14.6	5.9	5.3	2.1	3.3	4.9	
FORGE ²	76.7	42.1	57.5	43.3	51.5	60.3	14.4	1.9	6.2	4.4	5.8	5.5	
GUNNER ¹	71.1	41.9	56.0	47.1	51.3	61.3	15.5	6.4	7.3	3.0	3.9	4.5	
NORLANDER	75.7	39.6	55.7	44.6	50.4	58.2	14.4	3.1	4.8	2.3	5.9	4.6	
2375	67.8	38.7	51.6	47.3	48.5	59.8	14.4	3.9	6.0	6.3	6.4	5.5	
AC BARRIE ¹	76.7	35.4	52.2	43.8	47.9	59.5	15.6	6.1	8.0	4.9	5.8	5.8	
NORA	67.8	34.7	51.6	42.0	45.9	58.5	15.5	4.5	4.0	3.0	6.0	4.7	
AC DOMAIN	65.7	33.9	51.0	40.7	44.9	58.9	16.0	4.4	7.4	3.5	6.0	5.3	
MEAN	74.5	39.8	57.3	48.7	51.8	59.0	14.6	4.6	5.7	3.3	4.9	4.6	
NO. OF LOCS.	2	5	5	4	16	11	10	10	3	5	6	13	

¹Gunner and AC Barrie 1999 data estimated

² Not tested in 1996, yield data adjusted for averages

³ Heading: 1 = early; Height: 1 = short; Lodging: 1 = no lodging; Foliar disease: 1 = no disease

200000226

LEAF AND STEM RUST DATA - 1998 UNIFORM REGIONAL DATA

VARIETY	LEAF RUST			STEM RUST	
	FARGO ND	CARR. ND	LANG. ND	FARGO ND	LANGDON ND
NORPRO	tMR	10R-tMR	10R	0	0
VERDE	20S-10MS	10R	5R	0	0
KEENE	10R-tMR	10R	5R	0	0
2375	20MS-10S	20MS-10S	5MS-5MR	0	0
BAART*	70S	80S	50S	20-40S	t-20S

*Susceptible Check

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICEEXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Monsanto Company	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER N93-0119	3. VARIETY NAME 'NORPRO'
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) Wichita Wheat Technology Station 5912 N. Meridan Street Wichita, Kansas 67204-1699	5. TELEPHONE (include area code) 316-755-7705	6. FAX (include area code) 316-755-0072
7. PVPO NUMBER 200000226		
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

9. Is the applicant (individual or company) a U.S. national or U.S. based company? ☒ YES ☐ NO
If no, give name of country10. Is the applicant the original owner? ☐ YES ☒ NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

☐ YES ☐ NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

☒ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

*Please see following page.

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

Exhibit E.
Statement of the Basis of Applicant's Ownership

The variety for which Plant Variety Protection is hereby sought was developed by Joe Smith, an employee of Agripro Wheat. By agreement between employees and Agripro Wheat all rights to any invention, discovery, or development made by the employee while employed by Agripro Wheat, were assigned to Agripro Wheat, with no rights of any kind pertaining to 'Norpro' being retained by the employees.

By contractual agreement the variety 'Norpro' was purchased from Agripro Wheat, a business unit of Advanta USA, Inc. in June of 1996 and is currently owned by Monsanto Company.